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| APPLICATION NO.                           | FILING DATE | FIRST NAMED INVENTOR    | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|-------------------------|---------------------|------------------|
| 09/741,724                                | 12/19/2000  | Santhana Krishnamachari | US000335            | 7516             |
| 24737                                     | 7590        | 07/15/2004              | EXAMINER            |                  |
| PHILIPS INTELLECTUAL PROPERTY & STANDARDS |             |                         | DO, CHAT C          |                  |
| P.O. BOX 3001                             |             |                         | ART UNIT            | PAPER NUMBER     |
| BRIARCLIFF MANOR, NY 10510                |             |                         | 2124                |                  |
| DATE MAILED: 07/15/2004                   |             |                         |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|                        |                 |                       |
|------------------------|-----------------|-----------------------|
| <b>Advisory Action</b> | Application No. | Applicant(s)          |
|                        | 09/741,724      | KRISHNAMACHARI ET AL. |
|                        | Examiner        | Art Unit              |
|                        | Chat C. Do      | 2124                  |

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 09 June 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a)  The period for reply expires 3 months from the mailing date of the final rejection.  
 b)  The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.  
 ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1.  A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.  
 2.  The proposed amendment(s) will not be entered because:  
 (a)  they raise new issues that would require further consideration and/or search (see NOTE below);  
 (b)  they raise the issue of new matter (see Note below);  
 (c)  they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
 (d)  they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_.  
 3.  Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
 4.  Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
 5.  The a) affidavit, b) exhibit, or c) request for reconsideration has been considered but does NOT place the application in condition for allowance because: See below.  
 6.  The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.  
 7.  For purposes of Appeal, the proposed amendment(s) a) will not be entered or b) will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.  
 Claim(s) objected to: \_\_\_\_\_.  
 Claim(s) rejected: 1,3-15 and 17-27.  
 Claim(s) withdrawn from consideration: \_\_\_\_\_.  
 8.  The drawing correction filed on \_\_\_\_\_ is a) approved or b) disapproved by the Examiner.  
 9.  Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.  
 10.  Other: \_\_\_\_\_

Part 5(c): Even though, the applicant amended all independent claims to try to overcome the rejection(s) under 112 2<sup>nd</sup> paragraph. However, the examiner believes the applicant does not sufficiently amend the claims to overcome the rejections under 112 because the amended independent claims still do not clearly disclose to what and how the maximum units are obtained by the system. For claim 27 rejection, Chen et al. disclose a decoder which scales video and still image decoding computational complexity with available computational resources (abstract as IDCT processes), the decoder comprising: a variable length decoder (col. 6 lines 33-38); an inverse quantizer which dequantizes signals received from the variable length decoder (col. 1 lines 29-31); and an approximate inverse discrete cosine transform (lines 7-12 in abstract) that scales decoding computational complexity in accordance with maximum available quantities of computational resource units (col. 1 lines 12-16), wherein the transform decodes encoded digital image and video data by performing a plurality of data multiplications each data multiplication having a data dependent value multiplied by a data independent value (col. 1 lines 35-55), and the performance of each data multiplication by the transform requiring a predetermined quantity of computational resource units (inherently for multiplication operation). Chen et al. do not disclose a transform performing a selected one of the data multiplications if a determined maximum quantity of the computations resource units available for the selected data multiplication is sufficient for performing same, or the transform performing the selected data multiplication with a shift-operation that requires a quantity of computational resource units which is less than is required for performing the selected one data multiplication. However, Riolfo discloses throughout disclosure that the key of improving DCT transform computation is to reduce the processing time (col. 1 line 44) and simplify the hardware (col. 2 lines 52-54). Riolfo discloses that the processing time between direct multiplication operation and shift-add operation is depending on the number of bits (e.g. equations in col. 2 lines 66-67 for multiplication by shift-add operation and equations in col. 1 lines 55-56 for direct multiplication operations). In addition, Riolfo also discloses the equivalent multiplication operation, the shift-add operation by shifting the arguments accordingly and add the intermediated terms to yield the multiplied result, would reduce the computation time (col. 2 lines 52-55). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention is made to add a mechanism to select either between the direct multiplication operation and the equivalent multiplication by shift-add operation using a computational resource units (e.g. processing time, computational time, power dissipation) wherein the advantage is clearly addressed as seen in Riolfo's invention into Chen et al.'s invention because it would enable to reduce space/hardware requirements, computing time, and power dissipation (col. 2 lines 52-54).

*Kakali Chaki*

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